

REMARKS

This responds to the Office Action dated **August 22, 2007**.

In the Office Action, claims 1-30, 32-46, and 57-76 are noted as pending in the application, claims 1-13, 18-30, 32-34, 36, 37 and 57-76 stand rejected, no claims are objected to and Claims 14-17, 35 and 38-46 are allowed. No claims have been withdrawn from consideration. Claims 31 and 47-56 were previously canceled without prejudice.

Claims 10, 13, 16, 37, and 61 were not discussed previously during the telephone interviews, but are amended herein to provide proper antecedent bases for the terms used in the claims. No new matter is added and the amendments are not done for purposes relating to patentability.

Claims 1, 12, 18 and 57 have been amended in ways that are believed to included recitations having the clarity discussed with the Examiner during the Telephone Interviews discussed below. Therefore, the claims are believed to be patentable as they presently stand.

Interview

Applicants appreciate the time and consideration given to the application by the Examiner during the October 16, 2007, and January 14, 2008 telephone interviews. Claims 1, 18, and 57 were discussed along with the *Ford*, *Weberling* and *Wilson* references, and the other water craft references were noted. Fin angles were discussed, and the Examiner noted that *Weberling* may have several fin members, for example if the fiberglass skin were punctured, exposing the web members 13 to water flow. It was noted that rejections are not sustainable where they change the principal of operation of a reference or render the reference unsatisfactory for its intended purpose. The Examiner suggested language such as that presently added to claim 1 to overcome the rejection.

It was noted that claims 14-17, 35 and 38-46 were indicated as being allowable, and Applicants appreciate the indication that those claims would be allowed.

As to claim 18, the acute angle was discussed and the rake angle was discussed, and it was noted that the rejection appeared to be addressing the direction of the acute angle rather than the magnitude of the rake angle. The Examiner during the October 16, 2007 telephone interview suggested amendments such as those presented in amended claim 18, relating to the direction for the leading-edge of the primary fin, and Applicants also amends the claim to recite the rake being less than 90 degrees.

As to claim 57, it was noted that the *Ford* reference is used to reject the claim. The relative positions of portions of the forward and rearward fins of *Ford* were discussed, and Applicants proposed language such as that in presently-amended claim 57.

Applicants' undersigned attorney suggested amendments for claims 1, 12, 18, 57 and 74, and the Examiner did not appear to have any objections to the amendments to claim 1. Claim amendments using terms such as a fin being over another fin were objectionable as assuming a particular spacial orientation for the assembly in order for one fin to be over another, absent any other limitations. Applicants appreciate the discussion of possible claim language and the resolution of language such as that for claim 1 for use in the claims to overcome the references.

Applicants also pointed out that prosecution in the present application has extended over five Office Actions (see MPEP Section 707.02), and the Telephone Interview was to more narrowly focus the prosecution.

Rejections

The Office Action makes the following rejections.

Claims 1-13, 18-30, 32-34, 36 and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by AU 91 7091 2 A (*WEBERLING*). In (A), a rejection of claims 1-13, 36 and 37 is based on a first interpretation of AU '912. In (B), a rejection of claims 18-30, 32-34 and 37 is based on a second interpretation of AU '912.

Claims 1-13, 36, 37, 57-64, 67 and 71-76 are rejected under 35 U.S.C. 102(b) as being anticipated by AU 8447182A (*FORD*).

Claims 65-70 are rejected under 35 U.S.C. 103(a) as being unpatentable over AU 8447182A (*FORD*).

Applicants' Disclosure

Applicants' disclosure has been discussed previously, and will not be recited further here.

Cited Prior Art

Weberling shows a fiberglass-covered larger fin 12 behind a smaller fin 16. The larger fin has an acute angle side opposite the smaller fin, and when in use, the members 13 are covered by the fiberglass.

Ford shows a larger fin 14 in front of a smaller fin 13. As shown in FIG. 6, the larger and smaller fins extend outward from respective structures in fin boxes 16 and 17. Considering the fins and their respective fin boxes together, no portion of the larger fin extends over any portion of the smaller fin, as can be seen by drawing a line at the interface of the fin boxes and perpendicular thereto. No portion of the larger fin crosses the perpendicular line.

Clearly Applicants' inventions are patentable over the prior art.

Claims

Consider now the claims in the application.

Claim 1 is an independent apparatus claim and recites in part:

“a smaller fin extending at least partly from the second base portion and positioned on the second base portion relative to the larger fin adjacent the acute angle side and substantially opposite the second side and wherein at least one line normal to the base intersects both the larger and smaller fins; and

“wherein the larger and smaller fins include respective outer surfaces separate from each other and configured such that when in use attached to a

surcraft the respective outer surfaces of the larger and smaller fins are exposed to water.”

None of the cited references taken singly or in combination teach or suggest the claimed combination, the recited elements quoted above, wherein at least one line normal to a base intersects both larger and smaller fins, or the larger and smaller fins configured as recited when exposed in use to water. *Weberling* shows a fiberglass-covered fin that would not function as intended if the fiberglass were breached. Additionally, the smaller fin in *Weberling* is on the obtuse angle side of the larger fin.

Claims 2-11 and 36 are dependent directly or indirectly from independent claim 1 and are asserted as being patentable for the same reasons as discussed with respect to claim 1, for the combinations in the dependent claims as well as for the additional limitations recited in the dependent claims.

Claim 12 is an independent apparatus claim and recites in part:

“a smaller fin extending rearwardly from the base and having a leading secondary edge and a trailing secondary edge, wherein the smaller fin is on the concave primary edge side of the larger fin, wherein at least one line normal to the base intersects both the larger and smaller fins and wherein the larger and smaller fins include respective outer surfaces separate from each other and configured such that when in use attached to a surcraft the respective outer surfaces of the larger and smaller fins are exposed to water.”

None of the cited references taken singly or in combination teach or suggest the claimed combination, the recited elements quoted above, or wherein at least one line normal to the base intersects both the larger and smaller fins or wherein the larger and smaller fins include respective outer surfaces separate from each other and configured such that when in use attached to a surcraft the respective outer surfaces of the larger and smaller fins are exposed to water. *Weberling* shows a fiberglass-covered fin that would not function as intended if the fiberglass were breached. Additionally, the smaller

fin in *Weberling* is on the obtuse angle side of the larger fin. *Ford* does not have any fins intersected by a normal line as claimed. Clearly claim 12 is patentable over the references.

Claims 13, 36 and 37 are dependent directly or indirectly from independent claim 12 and are asserted as being patentable for the same reasons as discussed with respect to claim 12, for the combinations in the dependent claims as well as for the additional limitations recited in the dependent claims.

Claim 18 is an independent apparatus claim and recites in part:

“a secondary fin extending from the base, and positioned relative to the primary fin such that the path followed by the leading edge of the primary fin is partly toward the secondary fin, and wherein the secondary fin has an edge that has a tangent that is parallel to the surface wherein the primary fin extends relative to the secondary fin such that the assembly has a rake of less than 90°.”

None of the cited references taken singly or in combination teach or suggest the claimed combination, the recited elements quoted above, or a secondary fin has an edge that has a tangent that is parallel to the surface wherein the primary fin extends relative to the secondary fin such that the assembly has a rake of less than 90°. *Weberling* does not show an assembly with a rake less than 90°. Clearly claim 18 is patentable over the references.

Claims 19-30, 32-34 and 36 are dependent directly or indirectly from independent claim 18 and are asserted as being patentable for the same reasons as discussed with respect to claim 18, for the combinations in the dependent claims as well as for the additional limitations recited in the dependent claims. Note claim 24 reciting in part "wherein the trailing edge is feathered in an area intermediate of the secondary fin and the leading edge." Note also claim 25 reciting in part "wherein the trailing edge and the secondary fin are joined by an intermediate arcuate edge defined by the base." Claim 26 recites in part "wherein the arcuate edge is of varying radius." Claim 29 recites "wherein one or both of the faces are substantially planar."

Claim 57 is an independent apparatus claim and recites in part:

“a feathered or cutout portion in the rear edge extending towards the front edge, the feathered or cutout portion separating part of the fin body into two limbs, one limb being between the base edge and the feathered or cutout portion so as to form a stabilizing fin section of the fin body and the other limb forming a maneuvering fin section of the fin body wherein a tip of the maneuvering fin extends over at least a portion of the stabilizing fin and wherein at least one line normal to the base intersects both the maneuvering and stabilizing fins.”

None of the cited references taken singly or in combination teach or suggest the claimed combination, the recited elements quoted above, or wherein a tip of the maneuvering fin extends over at least a portion of the stabilizing fin. No part of the larger fin in *Ford* extends over any part of the smaller fin and wherein at least one line normal to the base intersects both the maneuvering and stabilizing fins.

Claims 58-76 are dependent directly or indirectly from independent claim 57 and are asserted as being patentable for the same reasons as discussed with respect to claim 57, for the combinations in the dependent claims as well as for the additional limitations recited in the dependent claims. Note for example claim 59 reciting “an angle . . . less than 90°”. Note also claim 60. Claim 62 recites structures that are neither taught nor suggested by the prior art. Note also claim 64 reciting in part “wherein when installed, a remote tip of the maneuvering fin section of the main body is disposed rearward of a rearward-most tip of the stabilizing fin section of the fin body.” Note claim 74 reciting in part “wherein the fin body has a streamline profile in transverse section which extends substantially from the front edge of the fin body to the rear edge thereof, the streamline section profile extending over at least a portion of the stabilizing fin section.” The recited fin has an overall unitary streamlined section profile which extends rearward from the leading edge of the fin body, incorporating a portion, if not all of the stabilizing fin section. With such a configuration, water flowing onto the stabilizing fin

section is less disturbed, which facilitates attachment of flow of water to that fin section, and also reduces cavitation associated with that fin section. In other words, such a stabilizing fin section does not have a streamline profile independent of its upstream counterpart (in the manner found in *Ford* and *Weberling*), but "inherits" at least its leading edge region from parts of the unitary fin structure forward of it. Clearly these claims are patentable over *Ford*.

Status of Application

The present application has been pending more than three years and has more than three Office Actions. See MPEP Section 707.02. It is understood that the Office Actions in this Application include the best references and that they have been carefully applied. See MPEP Section 707.02.

Reasons for Allowability

Applicants note for the record that a statement of Reasons for Allowance "is not intended to necessarily state all the reasons for allowance or all the details why claims are allowed." [See, MPEP 1302.14.] Additionally, the inventions claimed in the present application respectively comprise various elements in combination. Applicants respectfully submit that the patentability of each invention derives from the claimed combination of elements defining that invention, viewed as a whole, rather than from the presence of any particular element (or elements) in the combination.

If the Examiner does not believe the foregoing amendments place the application in a condition for allowance, Applicants respectfully request the courtesy of a further telephone interview to discuss the claims.

This response is being filed with payment for three-month extension of time.

Application No.: 10/501,582
Amendment dated: February 20, 2008
Reply to Office Action of: **August 22, 2007**
Atty. Ref.: 010100-120

Reconsideration of the application and claims in view of the foregoing amendments and remarks is respectfully requested. Early notice of allowance thereof is earnestly solicited.

Please charge any additional fees that may be due or credit any overpayments to our deposit Account No. 50-0655. If a petition is required in conjunction with this paper, please consider this a request for such a petition.

Respectfully submitted,

Dated: February 20, 2008

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